SELF SYNCHRONOUS SCRAMBLER APPARATUS AND METHOD FOR USE IN DENSE WAVELENGTH DIVISION MULTIPLEXING

ABSTRACT OF THE DISCLOSURE

[0050]A method employing a self-synchronous scrambler for transforming an arbitrary bit-stream into a bit-stream suitable for input to a DWDM network, and for reconstituting the original bit-stream from the transformed bit-stream. This method enables DWDM network equipment to properly transport data independent of the bit-stream characteristics and line encoding of the data. The self-synchronous scrambler of the present invention equalizes the number of "1"s and '0"s in an input bit-pattern over time periods of a few bit-clock periods, thus making it suitable for transport over a DWDM channel and providing for the recovery of the original bit-pattern from the scrambled pattern.